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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,708	04/10/2001	R. Dennis Nesbitt	P-5686-C1	2621

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EXAMINER

HUNTER, ALVIN A

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/829,708	Applicant(s) NESBITT ET AL.	
	Examiner Alvin A. Hunter	Art Unit 3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-11,13,15-17,19-21,23-25,30-33 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31 and 35 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-9,11,13,15-17,19-21,23-25,30,32 and 33 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 5, 7-9, 11, 13, 15-17, 19-21, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5725442) in view of Schenk (USPN 4085937).

In regards to claim 1, Higuchi et al. discloses a golf ball 1 comprising a dual core assembly 2 including a center component 3 comprising a thermoset material, wherein Higuchi et al. discloses the thermoset material being polybutadiene, and a core layer 4 comprising a thermoplastic material, and a cover layer assembly 5 disposed about the dual core assembly wherein the cover layer assembly includes an inner cover 6 having a Shore D hardness of up to 57 and an outer cover 7 having a Shore D hardness of 60 to 80 wherein the inner cover is softer than the outer cover (See Figure 1; Paragraph bridging Column 2 and 3; Column 3, lines 7, 8, and 63 through 65; Column 4, lines 13 through 24). Higuchi et al. does not disclose the any part of the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporated hollow spheres into any layer of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

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In regards to claim 5, Higuchi et al. discloses a golf ball 1 comprising a dual core assembly 2 including a center component 3 comprising a thermoset material, wherein Higuchi et al. discloses the thermoset material being polybutadiene, and a core layer 4 comprising a thermoplastic material, wherein the center component of the dual core has an outer diameter of up to 35mm, equivalent to up to 1.38 inches, and the dual core has an outer diameter of 30 to 39, equivalent to 1.18 to 1.54 inches; and a cover layer assembly 5 disposed about the dual core assembly wherein the cover layer assembly includes an inner cover 6 having a Shore D hardness of up to 57 and an outer cover 7 having a Shore D hardness of 60 to 80 wherein the inner cover is softer than the outer cover (See Figure 1; Paragraph bridging Column 2 and 3; Column 3, lines 7, 8, and 57 through 65; Column 4, lines 13 through 24). Higuchi et al. does not disclose the any part of the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporated hollow spheres into any layer of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

In regards to claim 7, the Higuchi et al. discloses the thermoset material being a diene-containing polymer, in particular polybutadiene and the thermoplastic material being an ionomer (See Column 3, lines 63 through 65; and Column 4, lines 13 through 21).

In regards to claim 8, Higuchi et al. discloses that the core layer may be more than one layer (See Column 2, lines 58 and 59).

In regards to claim 9, Higuchi et al. discloses the thermoset material being polybutadiene (See the above regarding claim 7).

In regards to claim 11, Higuchi et al. discloses the thermoplastic material being ionomer (See the above regarding claim 7).

In regards to claim 13, Higuchi et al. discloses the center component of the dual core having a density increasing agent, wherein Higuchi et al. notes the agent being zinc oxide or barium sulfate (See Column 4, lines 38 through 43).

In regards to claim 15, Higuchi et al. discloses a golf ball 1 comprising a dual core assembly 2 including a center component 3 comprising a thermoplastic material, wherein Higuchi et al. discloses the thermoplastic material being styrene butadiene rubber, and a core layer 4 comprising a thermoplastic material, and a cover layer assembly 5 disposed about the dual core assembly (See Figure 1; Paragraph bridging Column 2 and 3; Column 3, lines 7, 8, and 63 through 65; Column 4, lines 13 through 24). Higuchi et al. does not disclose the any part of the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporated hollow spheres into any layer of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

In regards to claim 16, Higuchi et al. discloses a cover layer assembly 5 disposed about the dual core assembly wherein the cover layer assembly includes an inner cover 6 having a Shore D hardness of up to 57 and an outer cover 7 having a Shore D hardness of 60 to 80 wherein the inner cover is softer than the outer cover (See Figure

1; Paragraph bridging Column 2 and 3; Column 3, lines 7 and 8). Higuchi et al. does not disclose the any part of the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporated hollow spheres into any layer of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

In regards to claim 17, Higuchi et al. discloses the thermoplastic material being a styrene butadiene copolymer, wherein the copolymer is styrene butadiene rubber (See Column 4, lines 22 through 24).

In regards to claim 19, Higuchi et al. discloses the thermoplastic material being ionomer (See Column 3, lines 63 through 65).

In regards to claim 20, Higuchi et al. discloses the center component of the dual core has an outer diameter of up to 35mm, equivalent to up to 1.38 inches, and the dual core has an outer diameter of 30 to 39, equivalent to 1.18 to 1.54 inches (See Column 3, lines 57 through 62).

In regards to claim 21, Higuchi et al. discloses the center component of the dual core having a density increasing agent, wherein Higuchi et al. notes the agent being zinc oxide or barium sulfate (See Column 4, lines 38 through 43).

In regards to claim 33, Higuchi et al. discloses a golf ball 1 comprising a dual core assembly 2 including a center component 3 and a core layer 4 wherein discloses the center component of the dual core having a density increasing agent, wherein Higuchi et al. notes the agent being zinc oxide or barium sulfate, and a cover layer

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assembly 5 disposed about the dual core assembly wherein the cover layer assembly is a multi layer cover assembly (See Figure 1; Paragraph bridging Column 2 and 3; Column 3, lines 7, 8, and 63 through 65; Column 4, lines 13 through 24 and 38 through 43). Higuchi et al. does not disclose the any part of the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporated hollow spheres into any layer of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

2. Claims 23, 24, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5725442) in view Schenk (USPN 4085937) further in view of Sullivan et al. (USPN 5803831).

In regards to claims 23 and 24, Higuchi et al. discloses the outer cover 7 having a plurality of dimples, but Higuchi et al. in view of Schenk does not disclose the inner and outer cover layers of ionomer having 16% or greater acid content and/or 16% or less acid content (See Column 5, lines 9 through 14). Sullivan et al. discloses a golf ball having an inner cover comprising a high acid ionomer, wherein a high acid ionomer is an ionomer having greater than 16 weight percent of acid, and the outer cover comprises a low acid ionomer, wherein a low acid ionomer is an ionomer having 16 or less weight percent of acid (See Column 5, lines 14 through 35; and Column 15, lines 10 through 39). One having ordinary skill in the art would have found it obvious to have an inner cover made of a high acid ionomer and an outer cover made of a low acid ionomer, as taught by Sullivan et al., in order to improved the spin of the golf ball.

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In regards to claim 32, Higuchi et al. in view of Schenk does not disclose a cover layer of a high acid ionomer. Sullivan et al. discloses a golf ball having a cover layer comprising an acrylic acid based high acid ionomer neutralized in (See Column 5, lines 14 through 35; and Column 7, lines 21 through 29). One having ordinary skill in the art would have found it obvious to have an inner cover made of a high acid ionomer and an outer cover made of a low acid ionomer, as taught by Sullivan et al., in order to improve the spin of the golf ball.

3. Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5725442) in view Schenk (USPN 4085937) further in view of Calabria et al. (USPN 5733428).

In regards to claim 25, Higuchi et al. in view of Schenk does not disclose the cover made of a thermoset polyurethane. Calabria et al. discloses a golf ball cover made of thermoset polyurethane (See Column 4, lines 60 through 67; and Column 5, lines 1 through 7). One having ordinary skill in the art would have found it obvious to have a polyurethane cover on a golf ball, as taught by Calabria et al., in order to enhance the abrasion resistance, cut resistance and velocity of the golf ball.

In regards to claim 30, Higuchi et al. in view of Schenk further in view of Calabria et al. does not disclose the polyurethane being a cast polyurethane. Applicant does not disclose why it is critical to the invention to utilize a cast polyurethane, therefore, one having ordinary skill in the art would have found it an obvious matter of design choice. The polyurethane disclosed by Calabria et al. would perform equally as well because it enhances the abrasion resistance, cut resistance, and velocity of the golf ball.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egashira et al. (USPN 5439227) in view of Schenk (USPN 4085937).

In regards to claim 3, Egashira et al. discloses a multi-piece golf ball comprises a dual core 3 having a center component 1 comprising a thermoset material, in particular polybutadiene, and core layer 2 comprising a thermoplastic material and a cover. The cover also has a hardness of 30 to 55 Shore D (See). (See Abstract; Column 3, lines 22 through 32; and Column 5, lines 2 through 8). Egashira et al. does not disclose the core assembly having an agent that is reduced in density. Schenk discloses a golf ball core having hollow spheres (See Column 3, lines 16 through 30). One having ordinary skill in the art would have found it obvious to incorporate hollow spheres into any part of the core of Higuchi et al., as taught by Schenk, in order to control the density of the golf ball.

Allowable Subject Matter

Claims 31 and 35 are allowed.

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 7/30/2004 have been fully considered but they are not persuasive. Applicant argues that prima facie has not been established because one would not be motivated to combine the hollow spheres from a two-piece ball into a four-piece ball to reduce the density. The examiner disagrees. Schenk discloses that hollow spheres can be used to reduce the density of a golf ball. The number of layers

within the golf ball is irrelevant because one having ordinary skill in the art would have drawn therefrom that hollow spheres can be used to reduce the density. Applicant is under the impression that the prior art has to absolutely predict the expectations, which is not the case. Only some degree of predictability is required. As stated above Schenk teaches that hollow spheres can be used to reduce the density.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich, can be reached on 703-308-1513. The fax phone

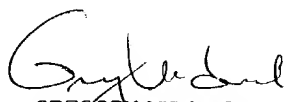
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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alvin A. Hunter, Jr.



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